Date: Tue, 5 Jan 93 14:06:38 PST

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V93 #22

To: Info-Hams

Info-Hams Digest Tue, 5 Jan 93 Volume 93 : Issue 22

Today's Topics:

1200Mhz is not a microwave band!

CFD: proposal for rec.radio.amateur.standup.philosophy (2 msgs)

Closed Repeaters.

Computer Fest Speakers Wanted

CQ rtty experts...

Ham transmissions-a hypothetical situation

ICOM W2A Battery rails

Quartz Crystal Sources (cheap)?

TS-140 OR IC-728 OR FT-747GX ??

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 5 Jan 1993 21:09:38 GMT

From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!gatech!destroyer!

cs.ubc.ca!newsserver.sfu.ca!news@network.UCSD.EDU

Subject: 1200Mhz is not a microwave band!

To: info-hams@ucsd.edu

In article <rrgd50-050193130047@222.5.80.3> rrgd50@email.sps.mot.com (Chris
Terwilliger) writes:

- > > In article <9301051454.AA02438@tix.timeplex.com> taylor@tix.timeplex.COM
 (Seth Taylor) writes:
- >> >Since so called "microwave ovens" operate in the UHF designation
- > > frequency range why don't we call them a "UHF" ? Think about that
- > > >one.

> >

```
>
> by the way...has anyone ever used tried to modulate old oven parts???
> Seems like a good project for someone with an oven they don't use any
> more...
I'm not so sure that I really want to transmit on a frequency that is absorbed
by water (that is, after all, what a microwave oven does - heat water)! Even
more fun in the rain! (:-)
- Richard Chycoski, VE7CVS
                                    richard@sfu.ca (Internet)
 Senior Systems Consultant
                                    richard@sfuvax (BITNET)
  Academic Computing Services
  Simon Fraser University
                                     (NeXT Mail OK)
Date: 5 Jan 1993 21:01:58 GMT
From: sun-barr!west.West.Sun.COM!l1-a!flloyd@ames.arpa
Subject: CFD: proposal for rec.radio.amateur.standup.philosophy
To: info-hams@ucsd.edu
In article <1ichifINNlik@tamsun.tamu.edu>
kurt@cs.tamu.edu (Kurt Freiberger) writes:
>I would like to propose a new group for the continuing discussion of
>sociopoliticotenchnologistic subjects pertaining to Amateur Radio. These
>discussions would be in the form of allegories, parallels, parables, and
>"I heard that"`s. Literary shredding is encouraged, without regard to
>race, religion, national origin, license class, lack of license (amateur or
>literary), or accuracy.
>This is in order to formalize an already-existant situation.
>Suggested subjects are:
>FCC peccadillos
>Harrumph.
Harrumph indeed! Well, I'll second the motion providing you can explain
what a pek-a-dee-o is.... --> Sounds like something you grab when
you're unsure of the situation at hand.... (e.g. Get a Grip!)
:-)
-fred
[ Fred Lloyd, AA7BQ
                                                Fred.Lloyd@West.Sun.COM ]
```

```
[ Sun Microsystems, Southwest Area Solaris Transition Manager ]
[ Phoenix, AZ
                                                                                                                          (602) 275-4242 ]
    Date: 5 Jan 1993 21:49:29 GMT
From: usc!cs.utexas.edu!tamsun.tamu.edu!cs.tamu.edu!kurt@network.UCSD.EDU
Subject: CFD: proposal for rec.radio.amateur.standup.philosophy
To: info-hams@ucsd.edu
In article <1ict06INNot8@west.West.Sun.COM>, flloyd@11-a.West.Sun.COM (Fred Lloyd
[Phoenix SE]) writes:
|> Harrumph indeed! Well, I'll second the motion providing you can explain
|> what a pek-a-dee-o is.... --> Sounds like something you grab when
|> you're unsure of the situation at hand.... (e.g. Get a Grip!)
|>
|> :-)
|>
A peccadillo is a cross between an armadillo and a chicken - no really:
pec.ca.dil.lo \pec.ca.dil.lo \pec.
  [Sp pecadillo, dim. of pecado sin, fr. L peccatum, fr. neut. of peccatus,
pp. of peccare]
        :a slight offense
Hmmm, getting a grip could be a peccadillo, depending on the gripee...
8-7
Kurt Freiberger, wb5bbw kurt@cs.tamu.edu 409/847-8607 fax:409/847-8578
Dept. of Computer Science, Texas A&M University DoD #264: BMW R80/7 pilot
"We preserve our freedom using three boxes: ballot, jury, and cartridge."
            *** Not an official document of Texas A&M University ***
Date: 5 Jan 1993 20:51:52 GMT
From: swrinde!cs.utexas.edu!bcm!lib!oac.hsc.uth.tmc.edu!jmaynard@network.UCSD.EDU
Subject: Closed Repeaters.
To: info-hams@ucsd.edu
[Followups to .policy...]
In article <1993Jan5.195950.5210@porthos.cc.bellcore.com>
mdc@vixen.cc.bellcore.com (marden,david c) writes:
>I feel that if at all possible the repeater coordinator(s) should
>reassign the pair in cases like this. Maybe the FCC should delegate
>the power to do this??
```

No coordinator would do so, for the simple reason that he'd get his ass sued off. On what basis do you decide that that club gets kicked off the frequency? Can you defend it in court? Can you even afford to defend it in court? You're asking the coordinator to make a value judgment, and that way lie lawsuits.

- -

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.

"Science is all in the public domain, and allows few secrets."

-- Tom Clancy, _The Sum of All Fears_

Date: Tue, 05 Jan 93 10:33:12 EST From: phsbbs!n2gj@princeton.edu

Subject: Computer Fest Speakers Wanted

To: info-hams@ucsd.edu

Please forward to any newsgroups that might be interested in this information. Many hams attend this conference, due to the merging of computers and amateur radio. There is a very well-attended packet conference coincidental to the program. RATS (Radio Amateurs Telecommunications Society) had a nice ham setup last year that drew nice crowds! See you there....73, Gerry

The Trenton Computer Festival '93 is almost here! This year's festival will be held on April 17-18, 1993 at the Mercer County Community College. As a guest speaker, you'll receive:

A Reserved Parking space! A FREE Admission Ticket! Two FREE Tickets to this year's TCF Banquet!

The program committee is looking for speakers on any technical, computer-related topic that you feel would be of interest to conference attendees. If you have a topic of interest, please contact:

Bob Todd, Speaker Chairman, at (215) 752-4604

By the way, this year's keynote speaker, Gordon Eubanks, of Symantec, promises to enliven the banquet you'll attend!

Please do not contact me -- I'm just passing the word along as a favor to my friends at TCF '93!

```
Gerald J. Jurrens N2GJ | Black holes are where God divided by zero!
Mathtech/Box 147 | Internet : n2gj@phsbbs.princeton.nj.us
Kingston, NJ 08528-0147 | Packet : N2GJ@KB1BD.NJ.USA.NOAM
(609) 520-3847 office | GEnie : G.JURRENS
Date: Tue, 5 Jan 1993 21:05:07 GMT
From: noc.near.net!lynx!lkay@uunet.uu.net
Subject: CQ rtty experts...
To: info-hams@ucsd.edu
In article <1993Jan5.110308.1@kean.ucs.mun.ca>, jcraig@kean.ucs.mun.ca writes:
>
    I built a RTTY demod and wrote a simple prog to read the
> serial port so I could copy RTTY on my PC. Unfortunately, most
> RTTY is baudot (5 bit) and not the 8 bit ACII which I can copy.
    If anyone has a source code ( C or BASIC) or algorithm or
> even a few ideas on how to copy baudot with a PC using a simple demod,
> I'd be very grateful if I could procure same.
> 73
> Joe, VO1NA
> --
Check out the /mirrors/msdos/hamradio directory at the wu.archive
ftp site. I have an old AEA CP-1 TU which is also just a demod
and I use RTTY12G, which I downloaded. There are a couple others
in that directory also. I don't remember any having source code, tho.
Good luck!
73, Len
Dr. Leonard Kay, KB2R | "But we are not dealing with the
Electrical and Computer Engineering | normal world. We are chasing DX."
 Northeastern University, Boston | -- W9KNI, 'The Complete DXer'
NU ARC: W1KBN 145.31(-)
Packet: KB2R@K1EA
                                | #include <disclaimer.h>
```

Date: Tue, 5 Jan 1993 20:59:35 GMT

From: noc.near.net!lynx!lkay@uunet.uu.net

```
Subject: Ham transmissions-a hypothetical situation
To: info-hams@ucsd.edu
In article <1993Jan5.085312.22208@ringer.cs.utsa.edu>,
sbooth@lonestar.utsa.edu (Simon E. Booth) writes:
> Here's a hypothetical situation I've been wondering about:
> Say I'm a ham operator (hopefully in the next few months!) and I have a
> favorite frequency (not claiming it of course) that I like to conduct
> QSO's on. My friends have shortwave receivers and I tell them to tune
> to that frequency if they want to hear me on the radio.
> My transmissions are not meant to be one way, for them, so does this
> violate the no one-way broadcasting rule?
> I'm conducting normal QSO's in this situation, not acknowelding that
> my friends are listening (saying hello to them, etc.).
> Is this legal??
Of course !!
> Which takes me to another more unsusual question:
> Have amateur operators ever receiver reception reports from regular
> shortwave listeners?
> A long time ago I was actually tempted to do this (send a reception report
> to a ham I heard on the air) but the signal faded before I could hear
> the address he was giving.
> Simon
Not unusual at all. I routinely get 1 or 2 SWL cards with every package
of cards from the bureau. In fact in several countries (well, maybe
not any more with the collapse of the East bloc) prospective hams were
required to collect a certain number of reception report QSLs before
obtaining their licenses. The ARRL QSL bureau system even has an
SWL incoming bureau.
```

Welcome to hamdom!

Dr. Leonard Kay, KB2R | "But we are not dealing with the Electrical and Computer Engineering | normal world. We are chasing DX."

Northeastern University, Boston | -- W9KNI, 'The Complete DXer'

NU ARC: W1KBN 145.31(-) |

Packet: KB2R@K1EA | #include <disclaimer.h>

Date: 5 Jan 1993 21:12:00 GMT

From: sun-barr!west.West.Sun.COM!11-a!flloyd@ames.arpa

Subject: ICOM W2A Battery rails

To: info-hams@ucsd.edu

In article <COE8n4.KBp@icon.rose.hp.com> bparrish@rose.hp.com (Bill Parrish)
writes:

>I had one of the rails on my ICOM W2A battery break about a month ago (radio >is about a year old). Could someone pass me along the information about >ICOM's fix for this (was it a fix to the RADIO, or to the BATTERY, and >were they extending warranty on it?) It was one of the rails on the >BATTERY that broke, but the ones on the radio look about as susceptable >as those on the battery. So far, I've put it back together with >cyanoacrilate, and it holds together for a while... I guess I need to >get a new battery eventually anyway, but I'm curious what ICOM was >doing about the problem... I only have vague recollection that there was >a fix.

> Thanks,
> Bill Parrish (bparrish@hprfes.rose.hp.com)
> KM6KV

If the radio is over a year old then it looks like you're SOL unless you can write a good heart wrenching sob story in a letter to Icom. My dealer (HRO), replaced my W2A battery TWICE, across the counter, no questions asked, during the first year. (not coincidentally I've spent several \$\$\$'s with them in the last year) Luckily, I haven't broken another since the warranty ran out.

There's no fix to the radio or the battery that I know of. I suspect that Icom merely chaulked it up to experience and now takes it into consideration when designing new ones. There was a rumor that the subesquent batteries had a teeny bit more plastic in the rail, but

Both times my battery broke, it was the result of a dropping. Once on the pavement and once on a table top. I'm sure glad I bought the nauga-case. -fred [Fred Lloyd, AA7BQ Fred.Lloyd@West.Sun.COM] [Sun Microsystems, Southwest Area Solaris Transition Manager] [Phoenix, AZ (602) 275-4242] _____ Date: Tue, 5 Jan 1993 19:58:16 GMT From: usc!zaphod.mps.ohio-state.edu!caen!hellgate.utah.edu!csn!stortek! v027197@network.UCSD.EDU Subject: Quartz Crystal Sources (cheap)? To: info-hams@ucsd.edu In article <669@ka2qhd.de.com> kd2bd@ka2qhd.de.com (John Magliacane) writes: >Does anyone have a "favorite" source for quartz crystals? JAN is as good as any! Good quality for the \$\$ and quick turn around. >I need two crystals, 3rd mode, VHF region, in a small holder. JAN wants >\$14.00 each, Crystek wants about \$12.50 each. >Before I get "mugged", I was wondering if anyone knew of any place that could >do better. >(What ever happened to \$4.00 crystals? Jeesh!) > ^^^^^ Go back in time about 20 years! Or wade thru a bunch of xtals at a flea market! :-) 73's George W1XE _____

it's not something that could be easily fixed anyway.

By the way, how did you drop your W2?

Date: 5 Jan 1993 15:35:44 -0600

From: usc!cs.utexas.edu!not-for-mail@network.UCSD.EDU

Subject: TS-140 OR IC-728 OR FT-747GX ??

To: info-hams@ucsd.edu

My wife (KB5TFX) is in Belize doing field research. We are going to set up an HF station there. I need net.opinions on the above. Criteria:

<\$1000 (<\$800 better...8-))
Fairly small, light weight
Lowest possible current draw (solar/batteries only option)
But not QRP (the cycle is going *down*...)</pre>

Also need opinions on AEA IsoLoop: Does it really work?? Got good reviews in 73 and QST. But, does it really work ?? It looks *so* small! I would get a GR5V (GV5R? G5RV??) dipole but the IsoLoop looks so simple to set up...(BTW, she is *quite* capable of setting up a dipole, thank you!)

Email preferred, but posting OK. (bandwidth costs *some* people
money...not me, but some...)

Thanks in advance

Peter Laws|GEnie:P.LAWS1|"The '90s are gonna make the '60s|plaws@uafhp.uark.edu n5uwy@ka5bml.ar.usa.noam| look like the '50s" --D. Hopper|plaws@uafsysb.bitnet

Date: 5 Jan 1993 20:53:30 GMT

From: noc.near.net!news.bbn.com!bbn.com!levin@uunet.uu.net

To: info-hams@ucsd.edu

References <1993Jan5.085312.22208@ringer.cs.utsa.edu>, <1993Jan5.161735.17871@ke4zv.uucp>, <1icp0aINNmiv@transfer.stratus.com> Subject : Re: QSL cards from SWLers (was Re: Ham transmissions-a hypothetical situation)

In <1icp@aINNmiv@transfer.stratus.com> fms@sw.stratus.com (Faith Senie) writes
|In article <1993Jan5.161735.17871@ke4zv.uucp>, gary@ke4zv.uucp (Gary Coffman)
writes:

- |> In article <1993Jan5.085312.22208@ringer.cs.utsa.edu> sbooth@lonestar.utsa.edu |>(Simon E. Booth) writes:
- |> >Which takes me to another more unsusual question:
- |> >Have amateur operators ever receiver reception reports from regular
- |> >shortwave listeners?
- |> Sure. It's less common today than when we were operating AM, but it
- |> still happens from time to time. Most hams who QSL, not all do, will

|> reply to a SWL card.

|What does one reply to a SWL card? I got one recently, and didn't realize |that some sort of reply was appreciated. Just a note saying thanks? or is |there something more that should be done? I'd hate to leave the guy hanging |if he's expecting some sort of reply...

I just got my first one the other day, after being on HF for only months, and just in the novice subbands as well. It was from the non-ham son of a silent key. His SWL card resembles a QSL; it has a number not unlike a call sign. The most unusual part of it is probably that he (correctly) reported me calling CQ around 3.7 Mhz. He included a nice little explanatory note and an SASE, so how could I refuse (since I do QSL)?

I sent him a QSL with the "confirming two-way contact with" crossed off, suitable text inserted, and the usual type of friendly note. If he had heard an actual contact I probably would have provided the same QSL as I would have sent my contact, with a notation saying it was an SWL QSL for <name> and <"call sign">.

Who assigns these "call signs"?

/JBL

Nets: levin@bbn.com | "There were sweetheart roses on Yancey Wilmerding's POTS: (617)873-3463 | bureau that morning. Wide-eyed and distraught, she N1MNF | stood with all her faculties rooted to the floor."

-- S. J. Perelman

Date: Tue, 5 Jan 1993 20:00:08 GMT

From: das.wang.com!wang!tegra!vail@uunet.uu.net

To: info-hams@ucsd.edu

References <1993Jan2.184109.13079@mnemosyne.cs.du.edu>, <eNTRwB1w164w@ham.almanac.bc.ca>, <1993Jan4.144520.19597@ultb.isc.rit.edu> Subject : Re: Who do repeater coordinators represent?

In article <1993Jan4.144520.19597@ultb.isc.rit.edu> cep4478@ultb.isc.rit.edu (C.E. Piggott) writes:

In article <eNTRwB1w164w@ham.almanac.bc.ca> emd@ham.almanac.bc.ca writes: >and that in many areas, all available repeater frequencies were assigned >BEFORE Packet became popular. There are several possible solutions here. >1. Persuade some local group to "give-up" a voice repeater frequency so > you can put up a packet repeater.

Statements like "I heard packet works better through a repeater" concern me (not that you said that - I've just heard it before). One of the potential strengths of packet is as a distributed, redundant system. Adding a repeater greatly reduces collisions, but at a significant expense:

I don't understand why you think these are problems:

 the repeater is a single point-of-failure, and many people will not be able to or know how to operate without it when the repeater dies

Making a better system will encourage stupidity?

 repeater coverage rarely stays localized. After a while, a better antenna, more power, etc. and you wind up with a wide-coverage packet repeater that is jammed up.

Making a useful system will make people want to use it?

I don't see either of your points as being problems. In fact if it were to become a problem then it just points out the need for *more* digital repeaters.

Getting back to the original topic we can discuss the problems of getting coordination since the repeater coordinators consider it packet and not eligible for the same protection as their repeaters.

jν

| Johnathan Vail vail@tegra.com (508) 663-7435 |Tegra| jv@n1dxg.ampr.org N1DXG@448.625-(WorldNet) ---- MEMBER: League for Programming Freedom (league@prep.ai.mit.edu)

Date: Tue, 5 Jan 1993 21:17:35 GMT

From: psinntp!isc-newsserver!cep4478@uunet.uu.net

To: info-hams@ucsd.edu

References <1993Jan4.143616.19209@ultb.isc.rit.edu>,

<1993Jan5.144017.16475@ke4zv.uucp>, <1ice33INNopu@network.ucsd.edu>#
Subject : Re: Who do repeater coordinators represent?

Don't trunked systems assume that the channels are used relatively infrequently? I am told that when the trunked system is overstuffed, you key your mic and don't get a channel so you have to wait. However, conversations between police cars, taxis, etc. seem more "bursty" than ham conversations - the whole conversation is fairly short.

Sounds neat, I'd like to hear more about these potential trunked ham experiments. It'd be nice if someone would post a description of these trunking systems in commercial use (how they acquire a free channel, when they give that channel up, how a receiving radio knows that it's group is on a particular channel, etc.)

Chris

- -

Christopher E. Piggott, WZ2B President Rochester Institute of Technology Amateur Radio Club K2GXT cep4478@ultb.isc.rit.edu
wz2b.ampr [44.69.0.1]
wz2b @ WB2PSI.#WNY.NY.USA.NA
CEP4478@RITVAXA.BITNET

Date: Tue, 5 Jan 1993 21:01:57 GMT

From: swrinde!gatech!udel!sbcs.sunysb.edu!rick@network.UCSD.EDU

To: info-hams@ucsd.edu

References <1993Jan4.143616.19209@ultb.isc.rit.edu>, <1993Jan5.144017.16475@ke4zv.uucp>, <1ice33INNopu@network.ucsd.edu> Subject : Re: Who do repeater coordinators represent?

In article <1ice33INNopu@network.ucsd.edu> brian@ucsd.edu (Brian Kantor) writes: >Ham radio is a dying hobby. I wonder if we deserve our frequencies >any more. We sure as hell aren't doing anything new with them. >Do I sound bitter?

> - Brian

You certainly would not get an argument from me on this subject. Given the exciting developments in PCN/cellular, etc I have to wonder whether we are just "in the way" of these developing technologies. As the consumer RF market becomes more developed and industry chases it with the vigor it did personal computers, we will fall behind at an increasing rate, IMO. I, for one, fully expect to have Internet access to my palmtop available commercially long before we hams ever get our act together and agree even on protocols, much less fast modem hardware. We'll have all the connectivity we ever dreamed of and without the funky acceptable use

rules of HR. Rick Spanbauer, WB2CFV

Date: 5 Jan 1993 21:14:12 GMT

From: swrinde!cs.utexas.edu!bcm!lib!oac.hsc.uth.tmc.edu!jmaynard@network.UCSD.EDU

To: info-hams@ucsd.edu

References <1ialnnINNt37@transfer.stratus.com>, <8323@lib.tmc.edu>,

<1icr4sINN108@transfer.stratus.com>

Subject : Re: Closed repeaters

[Followups to .policy...]

In article <1icr4sINNl08@transfer.stratus.com> leadfoot@bigbootay.sw.stratus.com
(Mark Curtis) writes:

>Except he isn't the only person parking in the lanes. Hundreds of others >have the same idea. Nobody has a problem with them using the road to drive >on, it's using it for a private parking lot when they aren't that we have >a problem with.

So use the next road over that has plenty of open lanes, and goes the same places.

>You can't be that thick skulled, you must be playing dense to avoid my point.
>No one is saying he should be forced to play taxi driver. Just don't park
>the damn thing in the middle of the road when you aren't using it. Let
>someone else use the lane while you aren't. I realize not having to bother
>with other people is real handy, but it doesn't work that way.

Who says he's not using it just because it isn't moving? He could be waiting for a passenger he's made an appointment to go to dinner with.

>You can spend all the money you want, but it isn't going to change the >fact that you are using public property.

So? The repeater is useless without a fixed frequency on which to find it, and to force him to share the frequency without his consent hinders his ability to use his property.

[BBQ grill analogy posted for the second time deleted]
>I'm not saying you have to let them use your grill/repeater, just don't
>try to lay claim to public property by building something on it. If you
>don't want to share your stuff (take it home/shut it off) when you are
>done (using the park for the day/talking). That way someone else, who
>has equal an equal right to use the park, can get the full use of the
>park that you enjoyed. Claiming exclusive rights to part of the park
>wrongly deprives them of its full use. It isn't your's to claim.

A barbecue grill doesn't lose its utility if you pick it up and move it. A repeater does.

Besides, the situation is more like the city telling you that you can build that grill there, and keep others from using it, and then telling you after you've built a \$10K grill complete with smokers, rotisseries, and gold-plated tongs that now you have to let everyone use it. Is that fair?

>I'm not saying don't put up a repeater. Just don't get this "I own this pair stay the hell off it" attitude. You don't own anything except your prepeater hardware and attitude. If someone you don't like starts using the machine turn it off. Getting on with an "I own this freq" attitude is particular your repeater off, that is the only thing you provided own and control.

Getting on with an "I can transmit anywhere I damned well please, and you can't stop me" attitude is wrong and silly.

If I were to follow your words, then someone who doesn't like me or my repeater can force me to keep it off the air, thus depriving me of the use of it. Is that fair?

Under the rules by which a LOT of repeaters were coordinated, they do in fact own that frequency. The simple fact of the matter is that you will not be able to change that easily or cheaply, and you may well not be aboe to change it at all. Want to put up a repeater? Try 220, or 900, or 1200; there's plenty of spectrum out there just begging to be used.

_ _

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.

"Science is all in the public domain, and allows few secrets."

-- Tom Clancy, _The Sum of All Fears_

End of Info-Hams Digest V93 #22 ************